Kentucky

Agricultural Experiment Station

University of Kentucky

MARKETING KENTUCKY POULTRY

BULLETIN NO. 285

Lexington, Ky.
June, 1928

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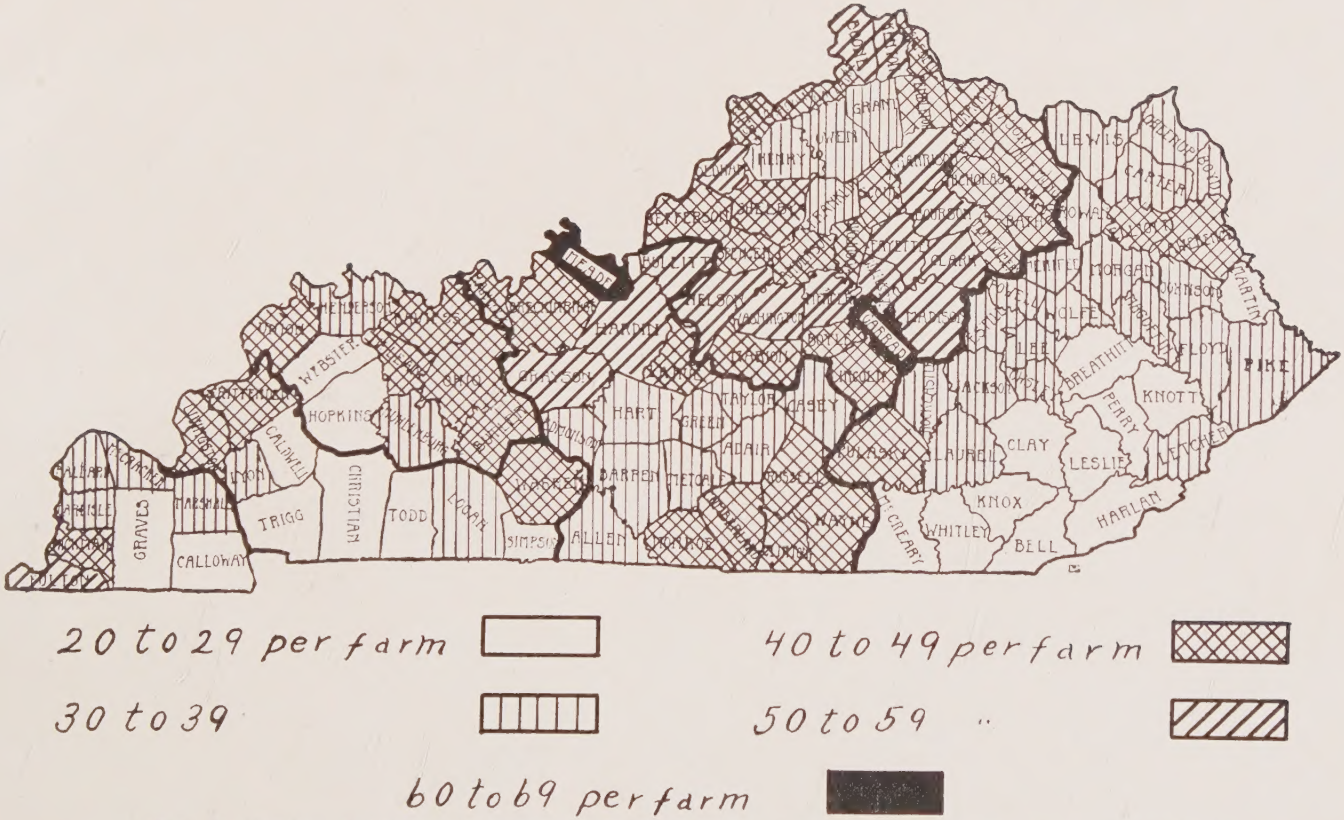

Fig. I.—Number of chickens per farm by counties in Kentucky, January 1, 1920. (U. S. Census.)

BULLETIN NO. 285

MARKETING KENTUCKY POULTRY[1]

By DANA G. CARD

Farm flocks are the principal source of market poultry. In 1925, poultry was kept on 86 percent of the farms in the United States and the average number of chickens per farm reporting was 74. The marketing of poultry, therefore, is a matter of concentration from numerous sources of production to comparatively few cities of major consumption.

Areas of specialized egg production exist on the Pacific and Atlantic coasts and around many of the large cities of the country. Such areas are of less relative importance in the poultry trade, however, because lighter breeds, which are less valuable for meat production, are popular in these sections.

The time of marketing poultry is less definitely determined by age and condition of flesh than is true of some other classes of livestock. A short intensive feeding period will put most poultry into marketable condition at any time of year. Seasonal demand and other factors, therefore, can influence the time of marketing quite materially.

Live poultry is a highly perishable product and must be handled accordingly. When confined in coops for shipment, after running at large on farms, birds frequently become sore, very subject to disease and often refuse to eat enough to maintain weight. Careless handling may result in heavy losses.

Dressed poultry is not as perishable as live poultry in the sense that it can ke kept in coolers for long periods. It is an

[1] See also Kentucky Agricultural Experiment Station Bulletin No. 283, "Marketing Kentucky Eggs."

important factor in the market and is held in cold storage from periods of heavy receipts to those of light receipts, which tends to steady dressed poultry prices.

High quality products stimulate consumption, but poor quality discourages it. In poultry, quality is primarily a matter of breeding, feeding, and care. Feeding for a limited time on highly fattening food bleaches the flesh of the fowl and improves its quality greatly. Milk feeding can not be used extensively for live poultry, however, because milk fed fowls do not stand shipment well. Some dealers believe the serious epidemic of European Fowl Pest, which occurred in the New York live poultry market during the winter of 1924 to 1925, was brought on or greatly increased by the unusual susceptibility of milk fed fowls.

Kentucky's opportunity for improving its market poultry industry lies chiefly in improving the quality of birds sold, both as to breed and condition of flesh.

KENTUCKY'S POULTRY INDUSTRY[2]

Poultry is a side-line to other activities on most Kentucky farms. Eggs are sold when they are produced in excess of needs for home consumption, and poultry is sold when housing space becomes crowded or when prices seem especially favorable. The income from these sources is not great, but is important in that it furnishes the farmer with some cash at times when few other products may be ready for sale.

The types of poultry raised are not predominantly of the lighter breeds, usually kept for egg production, or of the heavier American breeds. They are a mixture of the two. The American breeds are growing in favor, however, because they seem better adapted to general farm flock conditions.

Cash income from the poultry industry varies in different parts of Kentucky and is relatively of greatest importance to farmers in the mountain counties and in the west central portion of the State. In 1919 the receipts from the sale of poultry and eggs in Kentucky averaged about $44 per farm.

[2] Ibid.

PRINCIPAL MARKETS FOR KENTUCKY POULTRY

Cities within the State and close by furnish a limited outlet for Kentucky poultry, but New York City and other eastern and northern cities are the principal markets. The birds are shipped in live poultry cars, especially built for the purpose, or are fattened in feeding stations, killed and shipped as dressed poultry. Occasional shipments are made to southern markets also.

Eastern Kentucky does not offer the market for poultry that it does for eggs. Replies from 32 commissary departments of Eastern Kentucky coal companies indicate that only eight handle poultry in appreciable amounts.

A decided difference exists between states as to the seasonal movement of live poultry shipments. In general, Southern states have their heaviest movement in the Spring, while the peak of the movement of live poultry from more northern states is in the Fall. The percentage distribution of total receipts and receipts from seven states at New York City, in 1927, is

TABLE 1.—Distribution of Freight Unloads of Live Poultry at New York City—1927

Month	U. S.	Ky.	Mo.	Ill.	Tenn.	Okla.	Kan.	Ohio
	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent
January	6.3	6.2	6.2	5.0	3.6	11.6	10.0	3.3
February	6.9	7.0	6.6	4.4	8.9	11.8	8.6	.9
March	8.1	13.0	7.5	4.2	12.5	15.0	8.5	1.2
April	8.4	20.5	6.5	3.8	21.7	12.4	7.7	.7
May	7.5	12.2	7.9	4.6	17.7	9.3	9.4	2.6
June	8.4	5.1	11.4	7.4	7.1	6.0	12.1	5.4
July	7.2	3.4	9.8	5.9	5.0	4.7	7.7	7.4
August	8.8	5.5	10.9	9.2	7.9	6.6	8.6	5.4
September	9.9	6.0	9.2	13.7	4.2	6.6	9.1	11.9
October	9.4	5.7	7.3	14.7	2.0	4.0	7.7	17.7
November	9.6	5.8	8.0	14.7	4.9	3.6	5.2	23.0
December	9.5	9.6	8.7	12.4	4.5	8.4	5.4	20.5
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Per cent of total unloads	100.0	6.1	17.7	10.1	8.1	6.7	5.5	3.5

given in table 1. The distribution of total receipts in 1927 agrees very closely with the average of five previous years.[3]

Figure II presents information relative to dressed poultry receipts at four leading markets, during the years 1922 to 1925. About 50 percent of the total receipts arrived during the months of November, December and January, and about 14 per cent arrived during April, May and June. The receipts from Kentucky, however, are distributed somewhat differently. During November, December and January, 34.5 percent of the receipts from Kentucky arrived at these markets and about 29 percent arrived during April, May and June. The dotted line shows the percentage of total receipts which came from Kentucky.

The monthly average prices of dressed fowls in New York are indicated in the figure. It will be noted that the spring movement from Kentucky takes place during the period of highest fowl prices.

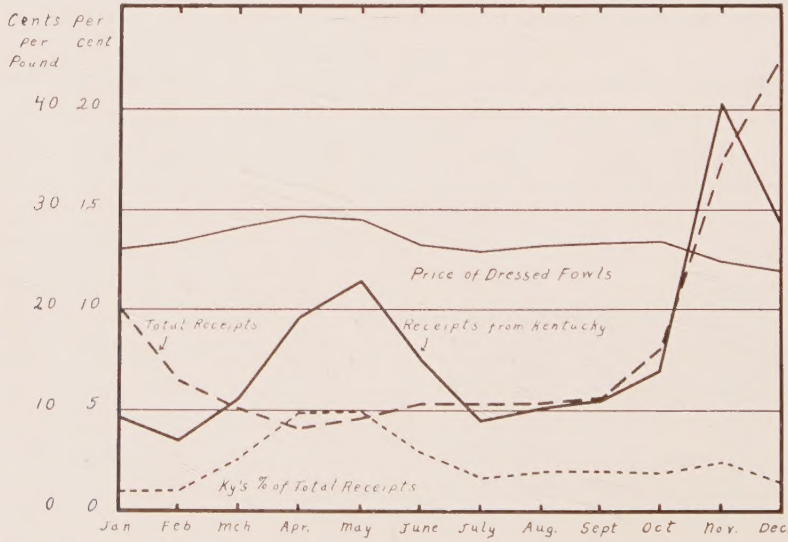

Fig. II.—Percentage distribution of total receipts and receipts from Kentucky, of dressed poultry at four markets, the percentage of total receipts coming from Kentucky, 1922-1925, and the monthly average wholesale price of dressed fowls at New York, 1921-1925. (Four markets—New York, Chicago, Boston and Philadelphia.)

[3] Receipts by states were not obtained for years prior to 1927.

FACTORS AFFECTING DEMAND FOR POULTRY

The daily demand for dressed poultry is more constant than for live poultry, and fluctuations in market prices usually are less violent. New York City is the principal live poultry market of the country. The live poultry trade might be nearly replaced by feeding stations in the country and dressed poultry on the market, if it were not for the large Jewish population in New York and other cities. It has been estimated that the Jewish population consumes 85 per cent of New York's live poultry receipts and that 10 per cent is consumed by Italians, the remainder going to various other Gentile groups.[4] The Orthodox Jew requires that his poultry be killed by a Jewish Rabbi or his authorized agent, under special regulations and in a certain manner. A small charge per head is made for this service, which may explain why Jewish consumers usually demand heavy fowls.

New York's large Jewish population also causes periods of special demand for live poultry, due to the religious holidays. Special types of poultry are in demand on these days, as indicated in table 2, which gives the dates of seven important Jewish holidays for eight successive years. The most important Jewish holidays, from a market standpoint, occur in April and September.

The influence of Jewish holidays upon daily market receipts of live poultry is illustrated in Figure III, which shows the daily receipts of live poultry at New York City for five days in each week of 1925. Receipts on Saturday normally are small, consequently Saturdays and Sundays are omitted in the figure. Seven important Jewish holidays are indicated by circles. The receipts of live poultry were large just before each of these holidays, except Purim (March 10). The influence of Thanksgiving and Christmas is shown also.

It will occur to many readers that there may be a definite tendency for receipts of live poultry to be larger on certain days of the week than on other days. Figure IV indicates the average receipts of live poultry at New York for each day of the

[4] Economic Survey of the Live Poultry Industry of New York City. U. S. Bureau of Agricultural Economics, July, 1927.

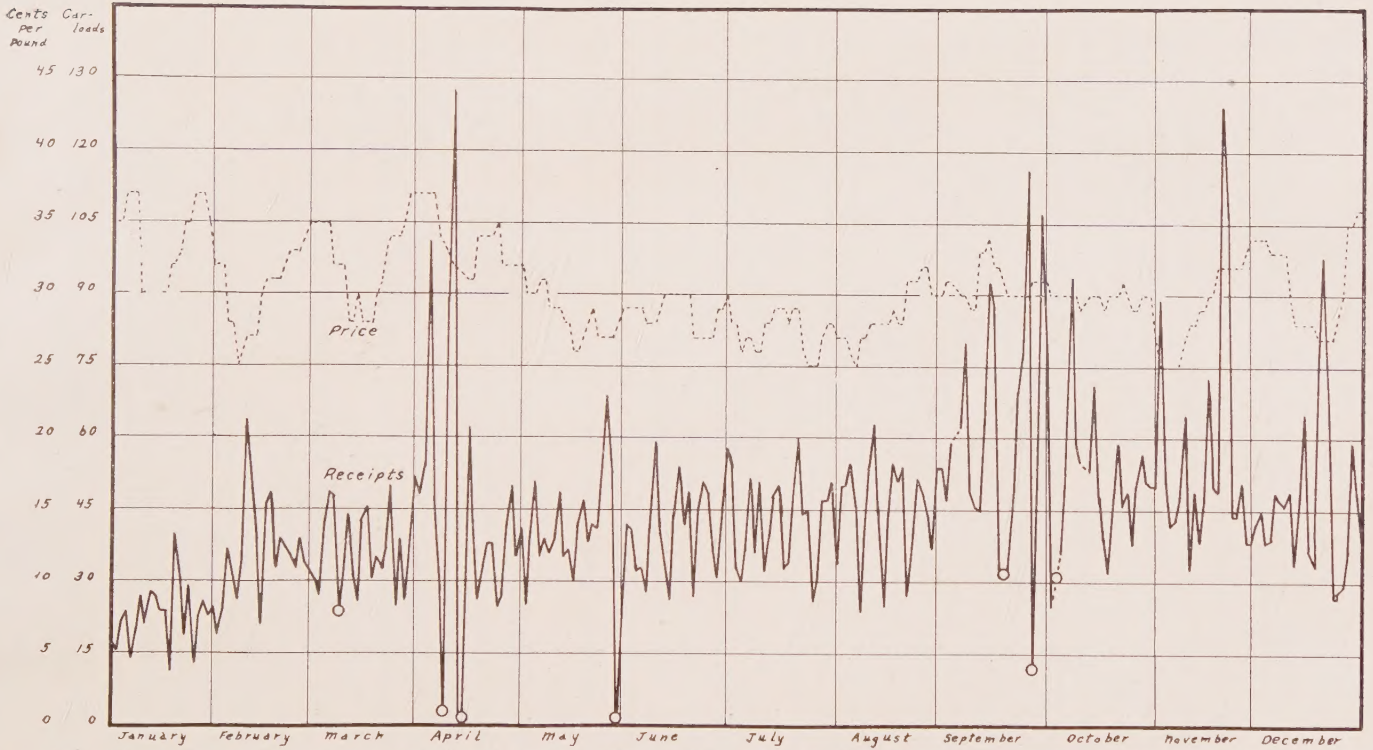

Fig. III.—Daily receipts of live poultry and the top price of live fowls at New York City in 1925. (Saturdays and Sundays omitted. Data from the New York Produce Review and American Creamery.) The Jewish holidays indicated by circles are: Purim, March 10; Passover, April 9; Last Passover, April 15; Feast of Weeks, May 29; New Year, September 19; Day of Atonement, September 28; and Feast of Tabernacles, October 3. Thanksgiving and Christmas also are indicated.

week, except Sunday, during forty weeks of 1925. To avoid the influence of unusually large receipts due to certain holidays, only those weeks were taken in which no influence of holidays upon receipts could be noted. Receipts were largest on Wednesday and smallest on Saturday. The average top price of live fowls, as indicated by the dotted line, was practically the same for each day of the week.

Because the holidays do not occur on the same date each year, it is not practicable to average daily receipts for a period of years to be presented in the form of Figure III. In Figure VI, however, receipts on days immediately preceding and following important holidays in 1925, 1926 and 1927, have been

TABLE 2.—Hebrew Holidays 1925-1932*

Year	Purim	1st Day Pessach (Passover)	7th Day Pessach (Last Passover)	1st Day Shabuoth (Feast of wks.)	Rosh Hashanah (New Year)	Yom Kippur (Day of Atonement)	1st Day Succoth (Feast of Tabernacles)
1925	Mar. 10	Apr. 9	Apr. 15	May 29	Sept. 19	Sept. 28	Oct. 3
1926	Feb. 28	Mar. 30	Apr. 5	May 19	Sept. 9	Sept. 18	Sept. 23
1927	Mar. 18	Apr. 17	Apr. 23	June 6	Sept. 27	Oct. 6	Oct. 11
1928	Mar. 6	Apr. 5	Apr. 11	May 25	Sept. 15	Sept. 24	Sept. 29
1929	Mar. 26	Apr. 25	May 1	June 14	Oct. 5	Oct. 14	Oct. 19
1930	Mar. 14	Apr. 13	Apr. 19	June 2	Sept. 23	Oct. 2	Oct. 7
1931	Mar. 3	Apr. 2	Apr. 8	May 22	Sept. 12	Sept. 21	Sept. 26
1932	Mar. 22	Apr. 21	Apr. 27	June 10	Oct. 1	Oct. 10	Oct. 15
Kinds of poultry particularly desired	Turkeys	Heavy fowls, fat ducks, geese	Heavy fowls	Fowls	All Kinds	Roosters, spring chickens	Ducks, geese

*Adapted from "Marketing of Poultry Products" by E. W. Benjamin and the "Jewish Daily Forward," New York City.

averaged and shown graphically. The average top price of live fowls on the same days also is shown. By showing average daily receipts during the months in which each holiday occurred, a comparison with receipts on the days adjacent to holidays may

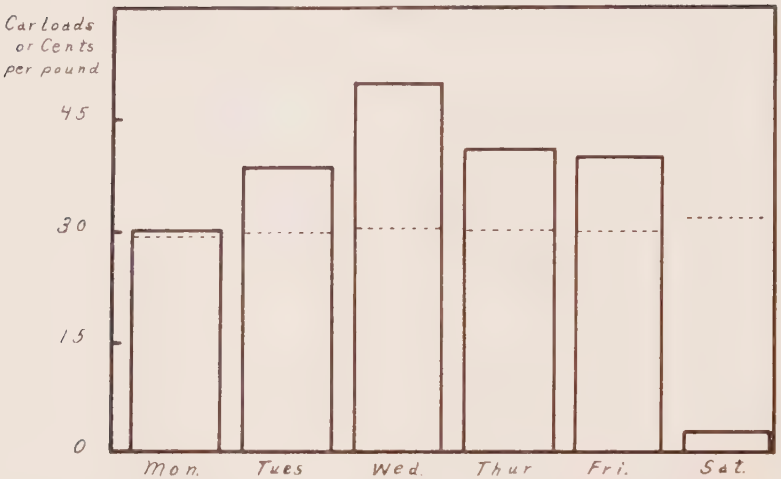

Fig. IV.—Daily average receipts of live poultry and top wholesale prices of live fowls at New York City during forty weeks of 1925 in which no major holidays occurred. (Data from New York Produce Review and American Creamery.)

be made. Similar averages for the top price of heavy live fowls are shown.

In every case large receipts of live poultry occurred on the second, third, or fourth day preceding the holiday. Prices, however, show no such regularity.

The effect which Jewish holidays have upon the receipts of specific classes of live poultry is shown in Figure V. Weekly receipts at New York City are plotted from February 7, 1927, thru the first three weeks of April, 1928. Nearly all of the holidays seem to affect the receipts of fowls. The September holidays, as well as Thanksgiving and Christmas, show an effect upon receipts of chickens, while the latter two have a decided effect upon the receipts of live turkeys, ducks and geese. The first day of Pessach and the first day of Shabuoth seem to affect the receipts of both broilers and roosters.

Altho it is true that certain classes of poultry are in demand for several of the Jewish holidays, it should not be concluded that a rise in prices necessarily results from such demand. In some cases it appears that the special demand is over-supplied

and that prices actually are lower at such times than under more normal conditions.

In table 3 the average price of several classes of live poultry on six days immediately preceding certain holidays is compared with the average price for the month. The figures shown are averages for the three years 1925 to 1927.

Bold faced type is used to indicate the prices which seem to have been affected sufficiently by the holiday trade to be worthy of special notice.

Purim seems to have little effect upon prices, except in the case of ducks and geese. No effect upon turkey prices can be determined from a study of daily quotations, altho the averages given would indicate slightly lower prices.

The First Day of Pessach (Passover) tends to increase fowl prices. Altho turkey prices do not seem to rise prior to this holiday, in two of the three years they fell off sharply following it. The seasonal downward movement of prices of ducks and geese accounts for the apparent lower prices of these classes of poultry immediately preceding this holiday. The Spring holidays have little effect upon this downward tendency. Seasonal movements are especially important when the holidays occur near the first or the last of the month, thus tending to raise or lower the monthly average compared with the average of days preceding the holidays. In most cases during the three years, 1925 to 1927 inclusive, the holidays are distributed over the month sufficiently to counteract seasonal price tendencies.

The Seventh Day of Pessach (Last Passover) affected prices of most classes of poultry adversely in the three years studied. The fowl market seems to have been over-supplied, and old roosters were not wanted. A study of daily quotations discounts the apparent improvement in the prices of ducks and geese. Quotations of poultry received by express show improved prices for broilers just preceding this holiday.

The First Day of Shabuoth (Feast of Weeks) had quite an effect upon the price of broilers received by express but less on those arriving by freight. Old roosters were decidedly lower

TABLE 3.—Average Prices of Live Poultry in New York City for Six Days Preceding Important Holidays and for the Months in Which the Holidays Occurred.

(Cents per pound; 1925-27 average.)

Bold-faced type indicates significant differences in price.*

	Purim		1st Day Pessach		7th Day Pessach	
	Mo. Ave.	6 Day Ave.	Mo. Ave.	6 Day Ave.	Mo. Ave.	6 Day Ave.
Heavy Fowls	30.8	31.2	**33.3**	**34.4**	**33.3**	**31.6**
Chickens (colored)	29.9	29.7	26.1	26.4	26.2	25.5
Broilers	49.7	48.5	49.5	49.7	49.5	49.6
Old Roosters	17.8	17.9	16.6	16.7	**16.5**	**15.2**
Turkeys	37.2	36.7	**32.0**	**36.1**	31.7	31.4
Ducks	**28.0**	**29.4**	23.3	22.1	21.6	22.8
Geese	**18.8**	**19.7**	15.2	14.7	14.5	15.2

	1st Day Shabuoth		Thanksgiving		Christmas	
Heavy Fowls	29.3	29.5	**28.0**	**28.9**	**29.1**	**27.1**
Leghorn Fowls	.....	.....	**20.2**	**21.5**	**23.2**	**21.3**
Chickens (colored)	.....	.....	**28.1**	**30.0**	**30.0**	**30.9**
Broilers	40.6	41.2	.....	.....	.....	.....
Old Roosters	15.3	14.0	17.4	18.2	16.0	15.8
Turkeys	26.1	25.8	**38.6**	**43.5**	**37.3**	**39.2**
Ducks	20.1	21.1	**24.5**	**25.9**	27.8	28.3
Geese	13.6	14.2	21.5	20.6	24.1	24.5

	Rosh Hashanah		Yom Kippur		1st Day Succoth	
Heavy Fowls	**30.3**	**32.1**	29.8	29.1	29.5	29.8
Leghorn Fowls	**22.7**	**24.9**	**21.4**	**20.3**	20.0	19.7
Chickens (colored)	**28.0**	**29.6**	27.0	27.3	26.2	25.9
Old Roosters	16.2	16.4	16.2	16.0	**16.3**	**15.0**
Turkeys	28.3	28.7	29.3	29.3	29.3	29.9
Ducks	24.1	24.7	23.8	24.0	**23.4**	**24.4**
Geese	18.7	19.3	19.9	19.3	20.5	20.3

*Data from New York Produce Review & American Creamery.

at this time and the effect upon prices of ducks and geese was negligible, altho the averages given might indicate otherwise.

Rosh Hashanah (New Year) is perhaps the most important of all Jewish holidays, from the standpoint of its effect upon

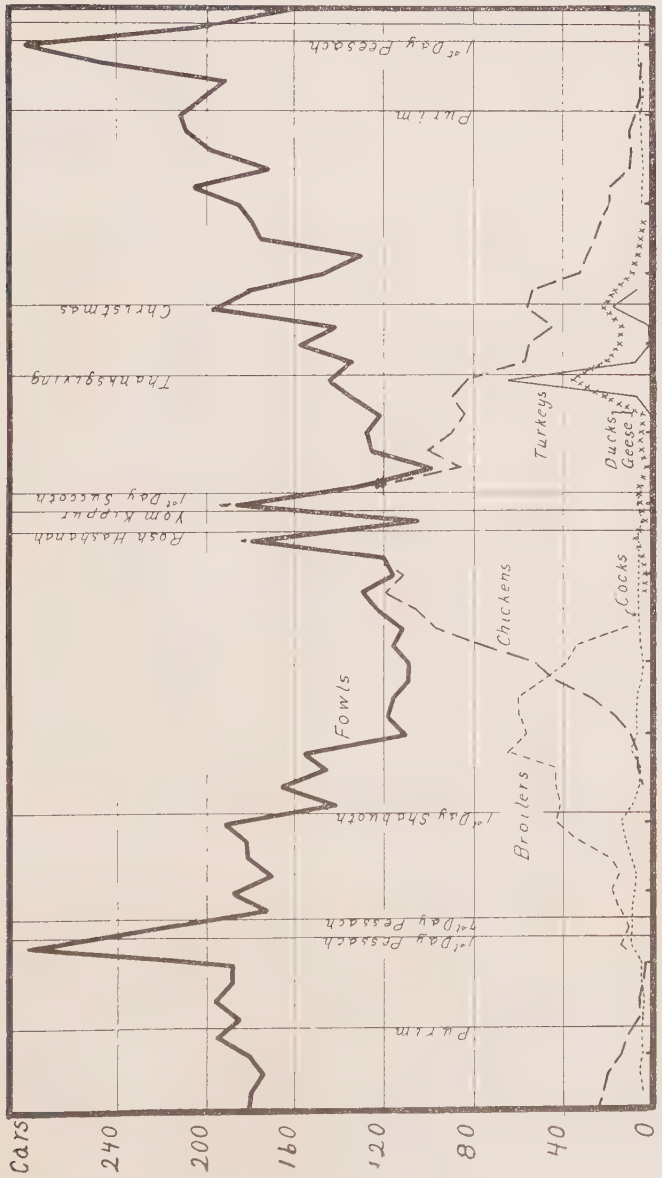

Fig. V.—Weekly unloads of live poultry by kinds, at New York City, February 7, 1927, to April 21, 1928.

the live poultry market. Both heavy and leghorn fowls and heavy chickens showed price improvement during the days of market demand preceding this holiday. Prices of ducks and geese also showed slight increases.

Yom Kippur (Day of Atonement) resulted in lower prices for leghorn fowls, but had little effect upon other classes of poultry.

First Day of Succoth (Feast of Tabernacles) seemed to affect the price of old roosters adversely, while some increase was shown in the price of ducks.

Thanksgiving caused a rise in the prices of all classes of live poultry, except geese, in the three years studied. In 1925 the price of geese dropped considerably just before Thanksgiving, which causes the discrepancy in the figures in table 3.

Christmas brought lower prices for old roosters and both heavy and leghorn fowls. Colored chickens and turkeys seemed to be higher in price just preceding this holiday, while prices of ducks and geese were benefited slightly. There seems to be a tendency for fowl prices to be high between Christmas and New Year's day and during the first week or ten days of January. It is likely that lower prices just preceding Christmas are due to an over-supplied market.

In general it may be said that Jewish and national holidays have a marked effect upon the demand for live poultry, but in cases other than Thanksgiving, Rosh Hashanah and possibly Christmas, the effect upon market prices in New York City seems not to be of material importance.

MARKET AGENCIES.

Live poultry is assembled by merchants, local dealers and carlot shippers. Dressed poultry is handled in much the same way, except that feeding stations for fattening and dressing the birds prior to shipment are an intermediate agency. Persons engaged in the handling of both live and dressed poultry in Kentucky have been interviewed for the purpose of learning something of their methods and the problems with which they are faced.

Merchants. Storekeepers usually are not anxious to handle poultry because of the trouble and risk involved with comparatively small opportunity for profit. Seven of the twenty-nine stores visited reported practically no poultry handled, and the other twenty-two reported about 422,000 pounds handled annually, an average of little more than a carload per store.

Produce Dealers. Most of Kentucky's poultry is sold directly to local produce dealers, who buy from farmers, hucksters and merchants. Seasonal movements of poultry to market are heaviest in the spring and late fall. Many dealers feel that the spring movement is too early to be economically sound. The usual strong market early in the spring encourages farmers so sell their hens before the spring lay of eggs is completed, thus increasing their income from the sale of fowls but decreasing their income from the sale of eggs. Some Kentucky dealers frankly admit operating on a wider margin in early spring purposely to discourage the sale of hens previous to the natural spring lay of eggs. See Figure VII. It is generally believed that hens kept thru the spring not only lose in market value per pound but lose in weight as well. It is a matter of conjecture whether it is more profitable to sell early or late.

Produce dealers usually protect their merchant customers by paying them one cent per pound more for poultry than is paid to producers. The buying prices are based on nearby and Eastern market quotations. Some poultry is sold in Southern markets also. Two-thirds of the dealers visited shipped to New York and four reported shipments to New Orleans and other Southern markets. The forty-two dealers visited in the survey handled about 1,128 cars of live poultry and 362 cars of dressed poultry during the previous year.

Carlot Shippers. Although the bulk of sales are made to produce dealers, who maintain regular places of business, shipments sometimes are made by transient poultry buyers. During the seasons of heavy shipment the transient buyer advertises the loading of a car of poultry on a certain day and the prices to be paid. He usually is a man with experience in feeding poultry in transit — an art in itself — and has no regular place of

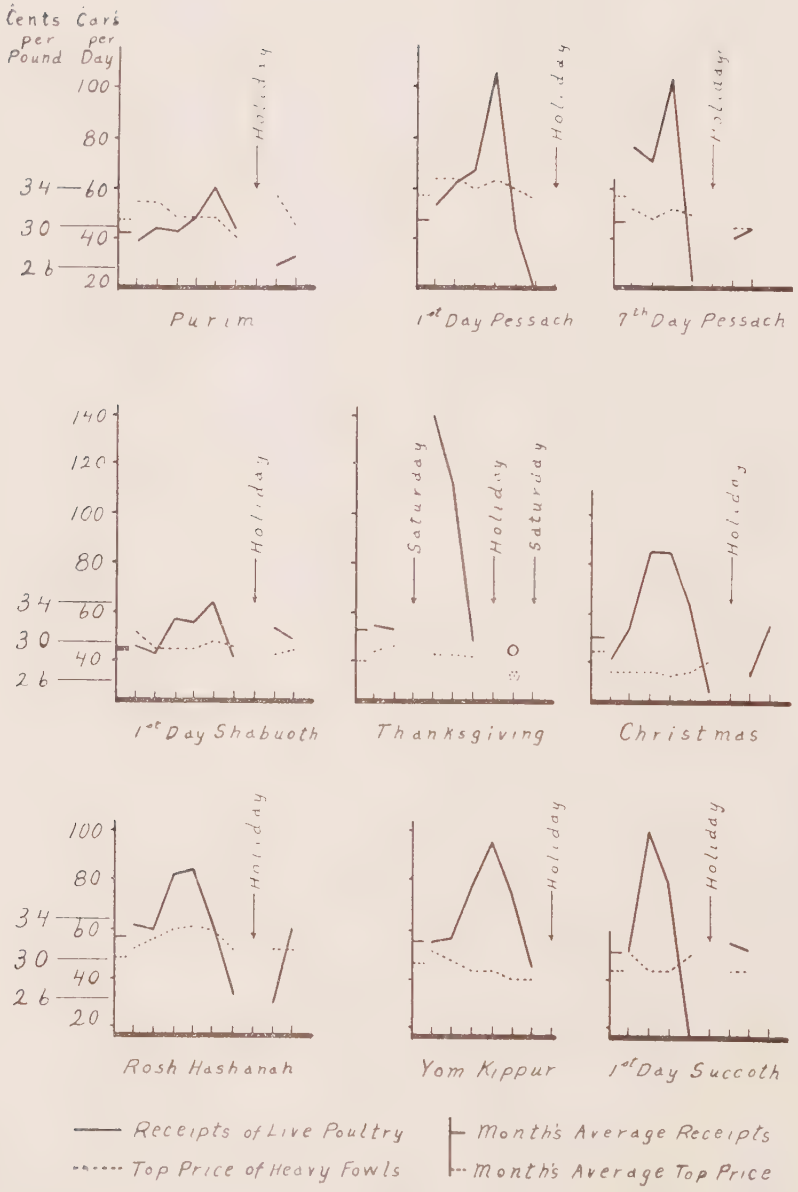

Fig. VI.—Receipts of live poultry and the top price of heavy live fowls at New York City on six market days preceding and two market days following important Jewish and national holidays, compared with average receipts and average prices for the month in which each holiday occurred. A three year average, 1925-27, is used. Saturdays and Sundays have been omitted except where receipts exceeded 25 cars.

business. The poultry car serves as his office. His expenses of operation are less than those of a local dealer who maintains a place of business and stands ready to buy poultry for cash on any business day in the year. The transient poultry dealer often takes away from the local dealer the cream of his business, making it much harder for him to operate at a profit.

Transportation Agencies. Transportation of poultry is conducted by truck, express and freight. Truck and express shipments are usually made in coops holding about eighty pounds of fowls. Freight shipments of dressed poultry are made in iced refrigerator cars and live poultry is shipped in specially built live-poultry cars. Many of these cars are owned by the Live Poultry Transit Company and leased to the railroads. They are constructed with an aisle in the center and tiers of coops on either side. Each coop has a feeding and watering trough and is built into the car with heavy wire screens to allow for ventilation. Live poultry receipts at New York City are estimated to have been shipped an average of at least 1,000 miles.[5]

Shipments handled by experienced feeders often make substantial gains while in transit, but others frequently suffer heavy losses. Records on 696 cars of live poultry shipped to New York City during the years 1923 to 1925 showed an average loss in weight of 225 pounds.[6] Of this number 233 cars gained an average of 325 pounds and 463 cars lost an average of 500 pounds. The net change in weight varied from a loss of over 2,000 pounds to a gain of a similar amount per car. This suggests one reason why cooperative organizations with a limited volume of business can best afford to sell their poultry "on track" to experienced shippers.

Feeding Stations. There are two principal reasons for fattening poultry commercially: first, to gain weight, and second, to improve the quality of the meat. Fattening as done by producers usually results in a gain in weight, but has little effect upon the quality of the meat.

[5] U. S. D. A. Farmers' Bulletin 1377.
[6] An Economic Survey of the Live Poultry Industry of New York City, U. S. Bureau of Agricultural Economics, July, 1927.

Poultry which leaves the farm in a condition unfit for immediate slaughter is collected at feeding stations for fattening. The stations are equipped with feeding batteries which frequently consist of sixteen metal coops with a capacity of 5 to 10 birds each, built together on rollers and fitted with a feeding trough for each coop. The feed used most commonly is buttermilk and ground grains mixed to the consistency of batter. Feeding periods vary from 1 to 3 weeks, the most common being from 10 to 14 days.

When received the birds are sorted as to kind, size and condition and placed in batteries, where they remain until removed for immediate slaughter. This method of feeding softens and bleaches the flesh, so that the birds must be handled with extreme care. The feeding also is a delicate operation and requires considerable experience for best results. Gains ranging from 5 percent to 50 percent of the original weight are made. One feeder reported occasional gains of 55 percent in late summer and early fall.

Milk-fed birds usually are dry picked and chilled, after which they are graded carefully as to weight, condition and color and packed in boxes containing one dozen birds each. Sometimes barrels instead of boxes are used. Feeding stations are located at several points in Kentucky. Those in Louisville supply the local hotel and restaurant trade and ship their surplus to larger markets.

Central Market Agencies. Wholesale dealers handle the poultry in carlots and sell to retailers, slaughter shops and hotel supply houses. The latter fill orders received from hotels and restaurants, and render services such as the thawing out and drawing of frozen poultry, packing in special containers for the trade, etc. The retailing of dressed poultry is conducted mostly thru meat shops.

The central market produce dealers visited in this study are jobbers and carlot shippers located in small central markets. They receive most of their poultry by express and sell either in the local market or make up carlots for shipment. They do, however, draw from a much larger territory than the local

produce dealers and have the large central market dealers' point of view. Two of these firms milk-feed many of the birds purchased and sell them as dressed poultry, three sell immediately upon delivery or within a few days, and the other handles poultry mainly in carload lots.

It is claimed by some dealers who handle poultry from all three states that Kentucky poultry on the whole is not as good as poultry from Indiana or Ohio. Actual figures have not been secured, but one dealer estimates the average weight of Kentucky poultry to be 4½ pounds per head, compared with 5½ pounds for Indiana and Ohio poultry. Another dealer estimates two-thirds of Kentucky poultry to be "light stuff," under 4 or 4½ pounds, while about one-fifth of Indiana and Ohio poultry would fall in that class.

The quality of Kentucky poultry is improving, and in some sections of the State it ranks well in both size and quality with poultry from the more typically grain states of Ohio and Indiana. As yet, however, southern poultry is discriminated against in eastern markets to such an extent that some Cincinnati dealers are following the practice of trucking poultry to more northern Ohio points for shipment, in order that their shipments may be classed as Ohio poultry.

Special Outlets. Only a very limited amount of poultry is sold directly to consumers by Kentucky producers. Roadside marketing has been developed in a small way and a few parcel post shipments of dressed poultry are made.

Somewhat more important are the shipments by express to dealers in nearby markets, altho even these are limited. Of forty-five Kentucky producers who marketed eggs directly, only nine sold poultry that way. Seven of these sold by express shipments to wholesale dealers and two sold to groceries, cafes or individuals. The demand for poultry from hotels and cafes tends to be periodic in nature because few of them have chicken on the daily menu. For some producers they offer an opportunity to secure desirable market outlets. It is not always satisfactory, however, for hotels and restaurants to buy directly

from producers. The following quotation is from a letter by one of Louisville's largest cafes and represents the experience of many of them.

"We prefer to buy from the produce dealers here. It is necessary for us to have graded chickens; we must be certain of eggs and milk. This cannot be done directly. . . . We would have to wait for farmers to come in and deliver, which is most uncertain. We have agreed to buy a lot of chickens, eggs and turkeys a number of times and delivery was not made at all, or a day late. We do not handle live poultry at all, and friers must be as near one size as possible. We consider buying from dealers of more advantage, for we can nearly always get what we want, just when wanted.

"If we have an unusual crowd, unexpectedly, as we sometimes do, we can get all we need in a few moments, by phone. As to price, we pay no more, for the few farmers who deliver to us demand the same as we pay the dealer. We have always been able to get perfectly fresh eggs, altho the price might be high."

MARKETING CAPONS.

Capons are the most recently developed and perhaps the choicest of poultry products. In raising chickens, young cockerels must be kept until the age at which they can be separated from the pullets. The question of the most satisfactory disposal of them after that time is a matter of judgment. Most producers prefer to sell these young chickens as broilers, weighing from 1½ to 2½ pounds each. Some, however, are seeking a more satisfactory outlet by caponizing and fattening them.

Capons are in greatest demand during December, January and February, after spring chickens have become staggy and when large, soft-meated roasting chickens are hard to find. The best demand is for large capons weighting eight, nine or ten pounds each, and first class capons must weigh at least eight pounds in order to command high market prices. During the seven years, 1921 to 1927, the price of ten-pound dressed capons in New York City averaged 47.3 cents per pound, eight-pound capons averaged 44.4 cents and five-pound capons 35.8 cents per pound.

Altho caponizing has been practiced only a few years in Kentucky, it is estimated that 40,000 capons were produced in this State in 1926. Reports received covering the marketing of about 26,000 capons indicate that only 63 per cent of them weighed over eight pounds each.

Of the 26,000 capons, more than half were sold alive to local dealers. About one-fourth were shipped alive to nearby markets and about 10 per cent were shipped alive to distant markets. Only about 8 per cent were dressed by the farmers who raised them. The reports received were almost evenly divided as to the most satisfactory method of sale. In addition to the 26,000 capons mentioned above, about 27,000 pounds of capons were dressed for farmers by one Kentucky dressing plant. These were sold as dressed capons in eastern markets and netted producers satisfactory prices.

In shipping capons alive, care should be taken to prevent bruises and excessive shrinkage in weight. Some shippers recommend the use of straw as bedding in the crates used for shipping capons. Because the tender flesh of a well finished capon is injured easily, it is preferable not to ship them alive for a very great distance. The demand for dressed capons frequently is just as good as for live ones, so the added risk in marketing them alive sometimes is not justified.

The principal difficulties encountered in the marketing of Kentucky capons are of three types. First, the number of birds available for sale at any one place usually is too small to attract the most satisfactory buyers. Second, producers have not mastered the art of producing capons, resulting in many slips and undersized birds being offered for sale. And third, capons are a luxury not well known to consumers, so the market may be over-supplied easily. Some system of advertising designed to acquaint prospective purchasers with the true value of capons as high quality meat should improve the market outlet for this class of poultry.

GRADES AND STANDARDS

Recently tentative grades for poultry were suggested by the United States Department of Agriculture. Grades now in use are those developed by the trade and are not uniform throout the country. Standardization of grades for both live and dressed poultry is to be desired.

The tentative grades suggested classify dressed poultry according to age, weight and sex as follows:

I. Chickens
- A. Young
  1. Broilers.
  2. Fryers
  3. Roasters
  4. Stags
  5. Capons
- B. Old
  1. Fowl
  2. Cocks

II. Ducks
- A. Young
- B. Old

III. Geese

IV. Turkeys
- A. Young Hens
- B. Young Toms
- C. Old Hens
- D. Old Toms

V. Guineas
- A. Young
- B. Old

VI. Squabs

Each class is graded according to quality and condition as follows: U. S. Prime, U. S. No. 1, U. S. No. 2, U. S. Culls. Weight specifications are made for all grades except U. S. Culls and quality specifications are made for each grade. To illustrate, those for fowls are:

U. S. Prime Fowls	Mature, full fleshed female birds, uniform pack and color, free from excessive abdominal fat, excessive scaly legs, deformities or dressing defects.
U. S. No. 1 Fowls	Mature, well fleshed, well dressed female birds free from deformities; or full fleshed birds that show slight dressing defects or deformities or excessive abdominal fat.
U. S. No. 2 Fowls	Mature, poorly fleshed, well dressed female birds, or well fleshed birds that show slight dressing defects or deformities.
U. S. Cull Fowls	Edible birds inferior to U. S. No. 2 fowls.

Further classification should be made according to:

I. Plucking
1. Scalded
2. Semi-scalded
3. Dry picked

II. Finishing
1. Milk fed
2. Grain fed

III. Condition
1. Fresh dressed
2. Fresh hard chilled
3. Frozen

IV. Packing
1. Dry
2. Iced

Although the grading of live poultry is not uniform or very carefully done in many cases, 14 of the 22 Kentucky merchants interviewed buy and sell poultry by grade. Price differentials paid by these grocers averaged 3.8 cents per pound and ranged up to 6 cents, depending upon the time of year and the kind of chickens.

Seventeen of the 42 dealers visited buy poultry by grade, at least part of the year. Two others grade to the extent of culling out leghorns, and some discriminate against thin birds and the light breeds, but have no definite system of grading. The usual method of grading live fowls is on the basis of weight, all birds weighing over 4 pounds or 4½ pounds going into one grade and those under the weight used going into another grade. Grades such as broilers, fryers, stags and roosters are used also. Differentials in prices paid ranged from 1½ cents to 7 cents and averaged about 3.7 cents per pound. More extensive use of buying grades in Kentucky would do much to improve the industry, altho at some seasons there is very little difference in the market value of light and heavy hens.

Tentative classes and sub-classes of live poultry which have been suggested by the United States Department of Agriculture, for the most common kinds of poultry are as follows:

U. S. Broilers (All breeds except Mediterraneans)

Light—¾ to 1¼ lbs. Medium—1¼ to 2 lbs. Heavy—2 to 2½ lbs.	Young, soft-meated chickens with breast bones flexible at the points.

U. S. Mediterranean Broilers (All Mediterranean breeds)

Light—1¼ lbs. and under Heavy—1¼ to 2½ lbs.	Same as above.

U. S. Chcikens (All breeds except Mediterraneans)

Light—2½ to 4 lbs. Heavy—over 4 lbs.	Same as above.

U. S. Mediterranean Chickens (All Mediterranean breeds)

All over 2½ lbs.	Same as above.

U. S. Stags (All breeds) (All weights)

Male chickens which have begun to get hard meated, coarse and stringy and showing nearly full comb development and well developed stubby spurs. Ends of breast bones no longer flexible.

U. S. Capons (All breeds)

Light—5 lbs. and under Heavy—over 5 lbs.	Unsexed male birds showing practically no comb or spur development and with profuse tail, saddle and hackle plumage.

U. S. Fowl (All breeds except Mediterraneans)

Light—4 lbs. and under	Mature female chickens.
Medium—4 to 5 lbs. Except that thin fowls weighing over 5 lbs. shall be included in this subclass.	Mature female chickens. If well fleshed may be designated also as "fat."
Heavy—over 5 lbs.	Mature female chickens. Must be well fleshed.

U. S. Mediterranean Fowl (All Mediterranean breeds)

All weights	Mature female chickens.

U. S. General Run Fowl (All breeds)

42 lbs. and over per dozen No weight limitations for individual fowl	Mature female chickens.

U. S. Old Cocks (All breeds)

All weights	Mature male chickens having well developed combs and spurs.

U. S. Turkey Toms (All breeds)

Light—under 9 lbs. but may include heavier Toms Heavy—9 lbs. and over	Tom turkeys, both young and old.

U. S. Turkey Hens (All breeds)

Light—under 7 lbs. but may include heavier hens Heavy—7 lbs. and over	Hen turkeys, both young and old.

U. S. General Run Turkeys (All breeds)

All weights	Young and old of both sexes.

Similar classes and sub-classes are suggested for ducks, geese, guineas and pigeons.

Any class or sub-class name may be supplemented by such breed, variety, age or other descriptive term as may describe the lot of poultry more completely: e. g. U. S. "Barred Plymouth Rock," Heavy Broilers, or U. S. "Young" Light Turkey Toms.

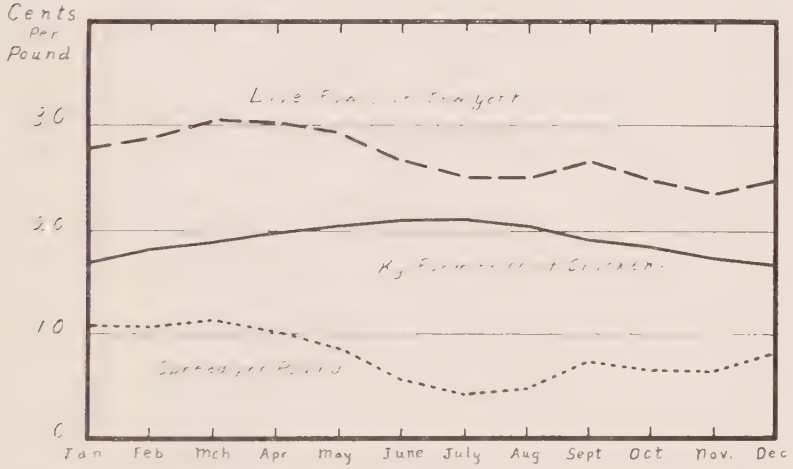

Fig. VII.—Seasonal spread between the Kentucky farm price of chickens and the wholesale price of heavy live fowls in New York City. (Average 1922-1926.)

Some general requirements which apply to the above classes and sub-classes of live poultry are:

1. "All live poultry shall be free from any disease or other condition which renders it unfit for human food. Extreme emaciation shall be taken to be evidence of a diseased condition which renders the bird unfit for human food."

2. "Culls shall be considered to be poultry which is fit for human food, but which may be thin, lacking vigor or deformed or blemished in such a way as to render it salable only at a considerable discount from prevailing prices for live poultry of its class."

3. "All classes of live poultry shall be subject to a tolerance for culls of not to exceed 3 per cent."

MARKET MOVEMENT OF DRESSED POULTRY

Receipts of dressed poultry at the principal markets are seasonal in nature. In the years 1923 to 1927, nearly 40 per cent of the receipts at five leading markets arrived in the months of

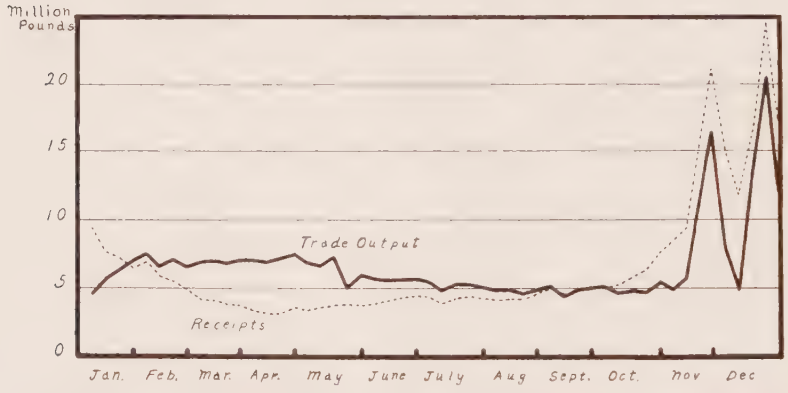

Fig. VIII.—Weekly receipts and apparent trade output of dressed poultry in five markets (New York, Chicago, Boston, Philadelphia and San Francisco) 1923-1927 average.

Fig. IX.—Total receipts of dressed poultry at New York City, by kinds, for each month of the year. (Average 1922-1926.)

November and December. About 27 per cent of the trade output occurred in the same months. Figure VIII indicates the discrepancy which exists between receipts and trade output of dressed poultry. Altho Thanksgiving and Christmas create a special demand for dressed poultry, this demand is overestimated by shippers and receipts exceed trade output at the time of both holidays. In September trade output and receipts are about equal.

In figure IX the receipts of dressed poultry at New York by months during the years 1922 to 1926 are shown by kinds. Receipts of fowls remained fairly constant thruout the year, while those of chickens increased thru the summer and became heaviest in October, November and December. Turkeys, ducks and geese were received principally in November and December, and capon receipts were largest in January.

Trade output by kinds has not been studied because such a large portion of cold storage holdings is classified as miscellaneous poultry.

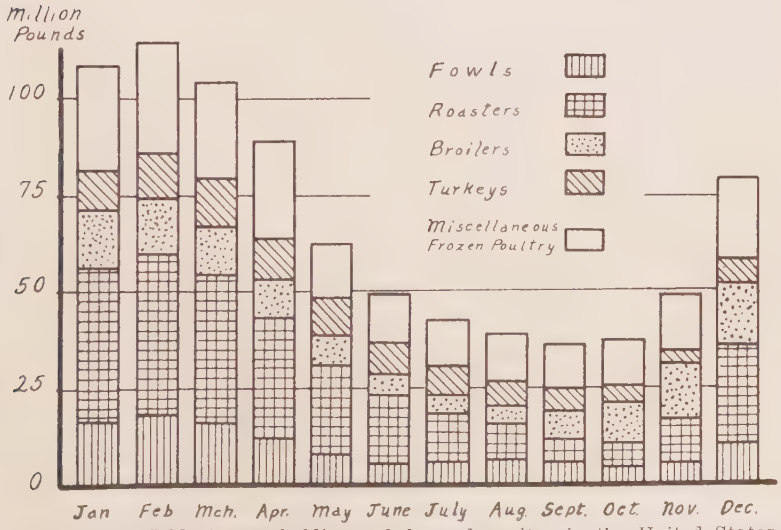

Fig. X.—Cold storage holdings of dressed poultry in the United States by kinds on the first of each month. (1922-1926 average.)

COLD STORAGE MOVEMENTS

Disparity between consumption of dressed poultry and receipts necessitates cold storage holdings. Average cold storage holding on the first of each month in the years 1922 to 1926 are shown in figure X by kinds. Total holdings were greatest in February and smallest about the first of September. In general this is true of the individual classes of poultry, except that broiler holdings were largest in December and smallest in July. Cold storage holdings of roasters and fowls were lowest about the first of October, while turkey holdings were lowest in November.

The movements into and out of storage tend to equalize fluctuations in receipts and to stabilize prices. The usual custom among feeding stations in producing regions or small cities is to sell their poultry as soon as a car can be loaded, altho some hire storage space in central markets. It is estimated that 65 or 75 percent of the dressed poultry in storage in the United States is held in five markets—New York, Chicago, Philadelphia, Boston and San Francisco.[7]

PRICE COMPARISONS

Price comparisons which are of interest deal with seasonal fluctuations, price cycles, dealers' margins, variations between different grades of poultry and variations between states. The lack of standard grades makes comparisons of this nature somewhat difficult, however.

Seasonal Fluctuations. No very decided seasonal changes occur in the price of most classes of dressed poultry. Chickens, which are highest in price during June and July, and capons, which seem to rise in price during the late winter and early spring months, are the exceptions. See Figure XI.

A comparison of Figures XI and XII shows that the seasonal changes in the price of live poultry are more marked than those of dressed poultry. It will be noticed that live broilers show the greatest seasonal change in price, the high point being

[7] U. S. D. A. Farmers' Bulletin, No. 1377—"Marketing Poultry."

reached in April. After September most broilers are classed as chickens, so the two lines nearly meet in that month.

Live turkey prices show a decided seasonal movement with the highest prices in October, November and December, illustrative of the customary Thanksgiving turkey-dinner appetite. The price curves shown in Figure XII, however, are averages for the last five years only. Estimated farm prices of turkeys in the United States during the last fifteen years[8] have averaged 21.7 cents per pound in October, 23.5 cents in November, 24.9 cents in December, and 24.5 cents in January. In ten of the fifteen years, the December price has been one cent or more above the November price. In eight years the January farm price also has been one cent or more above the preceding November price.

The question arises many times as to whether or not it is profitable to carry turkeys past the Thanksgiving market. The

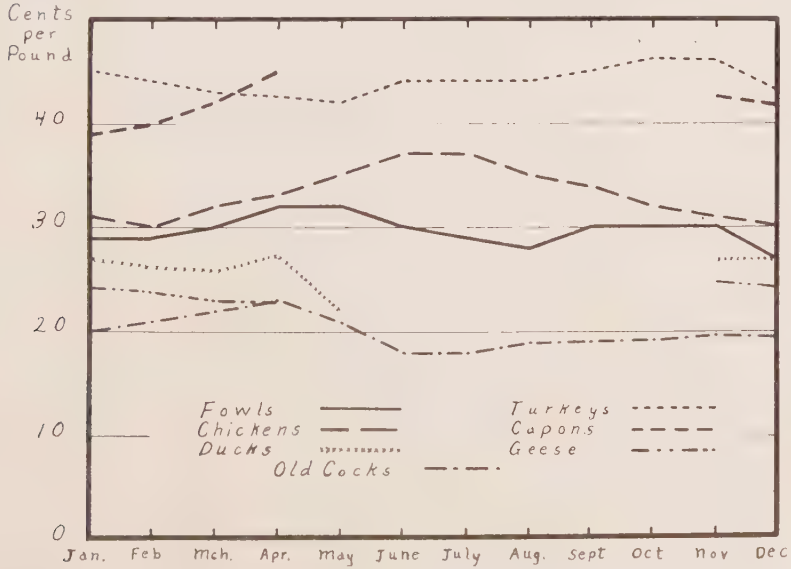

Fig. XI.—Weighted monthly average wholesale price of dressed fowls, chickens, turkeys, capons, old cocks, ducks and geese in New York City. (Average 1922-1926. Estimated weights by New York Produce Review and American Creamery.)

[8]U. S. D. A. Yearbook, 1926.

farm price figures given above would indicate that turkeys which are not ready for the Thanksgiving market frequently should be held until some later time for sale.

The average price of live fowls in New York, in the years 1922 to 1926 was highest in March and April, with a tendency upward in September. The movement of dressed fowl prices is quite similar to that of live fowls.

Quite decided seasonal price movements are indicated for live ducks, geese and chickens. A comparison of receipts and prices will show that seasonally high prices for some classes of poultry are the result of seasonal demand, rather than limited receipts. Periods of high prices and large receipts tend to coincide in the cases of turkeys and fowls.

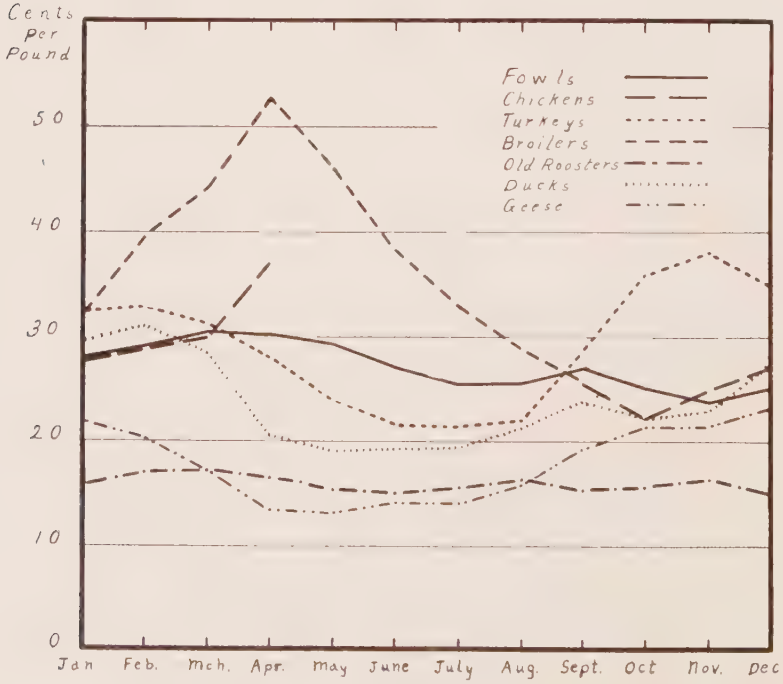

Fig. XII.—Monthly average wholesale prices of live heavy fowls, chickens, broilers, old roosters, turkeys, ducks and geese in New York City. (Average 1922-1926. New York Produce Review and American Creamery.)

Cycles. Historical studies have proved that the prices of many products tend to run in cycles or waves. Such reoccurring price movements usually are the result of over-expansion on the part of producers in periods of favorable prices, and the too severe curtailment of operations in periods of less favorable prices. The length and violence of these price movements are affected by various economic forces.

Poultry and eggs are joint products which are not always affected in the same way by economic factors. Under such conditions cyclic movements of prices are less likely to be pronounced than in cases where only one product is involved. While there is some tendency for poultry prices to move in cycles, it is not sufficiently definite to warrant special consideration here. It might be said, however, that an adaptation of price data for the last 100 years[9] indicates that swings in the purchasing power of poultry have varied in length from 6 to 18 years, and averaged 10 years, when measured from high point to high point.

Dealers' Operating Margins. Oftentimes the services performed by middlemen in marketing farm products are not appreciated. Their operating margins are looked upon as gross profits and are considered excessive. For this reason an attempt was made to learn from the poultry dealers visited, the amount of margin upon which they operate.

The gross operating margins of twenty country merchants visited were 5 cents per pound or less, and averaged 2 cents per pound, of poultry handled. Two merchants reported margins of 6 to 10 cents, and 5 merely stated that they expect to break even in the handling of poultry, their profits coming from the sale of groceries and other supplies.

Local dealers who sold poultry in nearby markets reported margins from 1 cent to 5 cents per pound and averaged 2.7 cents. Twenty-five dealers reported margins ranging from 5 to 10 cents, and averaged 7.7 cents per pound below New York

[9] "A Hundred Years of Poultry and Egg Prices and Profits," Reliable Poultry Journal, September, 1921.

City wholesale quotations. All expenses of operation, transportation and the like must be paid out of these margins.

Figure VII shows the seasonal spread between the Kentucky farm price of chickens and the price of live fowls in New York City. The spread is greatest in the winter months and smallest in the summer. These two prices are not directly comparable, however, and it is likely that the proportion of broilers and frying chickens sold in the summer months affects the farm price so as to narrow the margin at that time of year.

Comparisons With Other States. In states to the east and north of Kentucky the farm price of chickens generally averages higher than in Kentucky, and the price in states to the south and west usually is lower. During the five years, 1923 to 1927, the monthly average farm price of chickens in Ohio ranged from ½ cent per pound above the Kentucky price in July, to 3.7 cents above in March, and averaged 2.5 cents above. Indiana prices fluctuated from 1 cent below those of Kentucky in June to 1.7 cents above in December.

The average farm price per pound of chickens during the years 1923 to 1927, inclusive, in several states was as follows:

Kentucky	19.1 cents	Indiana	19.8 cents
Tennessee	19.0 cents	Illinois	20.2 cents
Missouri	18.6 cents	Ohio	21.6 cents
Kansas	17.7 cents	North Carolina	22.0 cents
Minnesota	16.7 cents	Pennsylvania	24.1 cents

These differences in prices probably are due both to variations in quality of poultry raised and to differences in distance from the principal markets.

COOPERATIVE MARKETING

The cooperative marketing of poultry did not develop very extensively until the last few years. In 1926, live poultry was handled cooperatively by about thirty-eight associations in the United States and dressed poultry by twenty-four associations. About twenty million pounds of live poultry and a like amount of dressed poultry were sold by these cooperatives. The value of live poultry was estimated at $4,850,000 and that of dressed poultry at $6,200,000. The amount of poultry marketed co-

operatively in 1926 by associations which reported to the U. S. Department of Agriculture, is shown in the accompanying table.

LIVE AND DRESSED POULTRY MARKETED COOPERATIVELY IN 1926[10]

State	Live Poultry		Dressed Poultry	
	Number of Associations	Quantity (Pounds)	Number of Associations	Quantity (Pounds)
Missouri	9	12,262,632	6	3,653,869
New York	1	3,080,000	1	12,700,000
California	3	1,494,667	....	.....
Washington	....	.....	1	1,846,927
Idaho	....	.....	1	1,104,000
Minnesota	8	1,061,639	5	276,988
Ohio	1	561,324	....	.....
Wisconsin	2	262,361	....	.....
Utah	1	245,000	....	.....
Texas	....	.....	1	147,750
Wyoming	....	.....	1	115,000
All others	9	383,453	4	237,276
Total	34	19,306,076	20	20,081,810

[10] "Cooperative Marketing of Poultry Products 1920-1926." U. S. Bureau of Agricultural Economics, September, 1927.

In Kentucky the development of cooperative poultry marketing has not been in the form of definite marketing organizations, but rather as cooperative sales. In Western Kentucky, particularly, it is not uncommon for a committee of farmers to arrange for a sale by securing bids on poultry to be loaded at a specified time and place. A substantial deposit in a local bank usually is required of the purchaser as a safeguard against loss, and the birds are paid for by check at the car door. The loading usually is done in one or two days and the car is rolled.

Such cooperative sales have proved very satisfactory when the volume of poultry available is sufficient for a carload. If not enough poultry is received to fill a car, or if more than enough for an even carload, is received, difficulties are encountered. A live poultry car will accommodate about 4,500 chickens which average four pounds in weight. The average net

weight of poultry in a large number of cars received at New York City during the years 1923 to 1926, was 16,700 pounds.[11]

The future development of cooperative poultry marketing in the Middle West must be made with the understanding that supplies will be gathered in small quantities from a large number of farms and forwarded to eastern markets in carload lots. The financial interests of individual producers will be small and marketings will be at irregular intervals so quality production and active interest on their part may be difficut to maintain. By solving these problems, however, cooperative poultry marketing may bring many advantages to the poultry producers of the Middle West.

PRINCIPAL PROBLEMS IN MARKETING

In making the study upon which this discussion is based, statements relative to the principal problems with which they were faced were secured from individuals actively engaged in the trade. Suggestions for improving unsatisfactory conditions in the poultry industry also were secured.

Only a small amount of poultry is handled by merchants in Kentucky, but seventeen reports received from those visited deal directly with problems relating to the quality of birds handled. Six reported the problem of light hens, from 25 percent to 65 percent of their receipts being fowls weighing less than four pounds each. Ten other merchants reported their chief problems to be due to careless breeding and feeding by farmers. One reported that hens are not fat, and another said farmers hold their cockerels too long, forcing them to be sold as stags rather than broilers. Two merchants experienced excessive shrinkage of poultry in shipment.

Of the 42 dealers visited, 39 reported one of the leading problems to be that of small, undersized or underfed fowls. About half of the small fowls were attributed to the lack of proper care and feed, and the other half to the breed of poultry raised. Few of the produce dealers feel that leghorns and other light breeds lay sufficiently more eggs to pay for the difference

[11] "An Economic Survey of the Live Poultry Industry in New York City." U. S. Bureau of Agricultural Economics, July, 1927.

in their value when sold. It is to encourage the use of heavier breeds and better production practices that some produce dealers pay for poultry on the basis of grade.

Eight dealers reported their problem as merely one of quality, while three or four found the competition of transient poultry buyers during the busy seasons to be their principal problem. Only five dealers reported difficulty from "stuffed" birds. One of these said, "Farmers are humane on sale days at least—they don't like to sell anything when it is hungry." Docking a few pounds when birds are stuffed is not uncommon and usually holds the practice of overfeeding in check. One dealer reported docking five pounds on a purchase of 156 pounds of poultry. The birds were penned separately and when weighed the following day showed a loss of seven pounds.

POSSIBLE IMPROVEMENTS

Improvements in the marketing of Kentucky poultry can best be made along the lines of quality production and better marketing practices. High quality increases demand by giving consumers a better product and it permits greater opportunity for profit to both producers and dealers.

In Kentucky the chief opportunities open to producers are the breeding of heavier, more meaty fowls; the better care, housing and feeding of those fowls, and the more careful study of market conditions in reference to the time of sale, market demands and other market factors. Good laying strains of the heavier breeds are not hard to produce, and altho their eggs may not be as uniform in size, shape or color as those of some of the lighter breeds, the large average size of both eggs and birds is an advantage. Improvements in care and housing usually can be brought about without great additional expense, while market information can be obtained by diligent and constant study.

Thirty-one reports from forty-two dealers indicated the breeding of heavier fowls to be one of the greatest opportunities for improvement in the industry, and twenty-four reports said poultry could be improved greatly by some extra feeding on the

farm. Dealers do not like to have birds excessively fat, because of resulting shrinkage in weight and losses from death, but moderate feeding on the farm is beneficial to both the farmer and the produce dealer.

Opportunities for the country merchant to improve the poultry industry are limited by the small amount of poultry handled. He can, however, encourage the use of grades by purchasing on the basis of grade and can help in a limited way by educating the farmer to produce better quality products.

Opportunities for improvement open to produce dealers are: (1) emphasizing quality, (2) buying on the basis of grade, (3) encouraging the use of better breeding stock, and (4) cooperating with other dealers in improving conditions in the industry. Seventy-seven of the suggestions for improvements, received from produce dealers, were related to the factor of quality. Twelve suggested definitely the buying of poultry on the basis of grade as a means of improving quality. Seventeen other dealers were buying on the basis of grade when interviewed.

A large portion of the dealers expressed their willingness to buy poultry on grade if their competitors would do so. The practice can not be originated and put into effect by any one dealer, but must be done by all the dealers in competitive territory. This requires cooperation between competing dealers, which is not easy to obtain or to maintain.

CONCLUSIONS

1. The marketing of poultry is a matter of concentration from numerous sources of production to comparatively few cities of major consumption.

2. Kentucky's opportunity for improving its market poultry industry lies chiefly in improving the quality of birds sold, both as to breed and condition of flesh.

3. A statistical study of the various sections of Kentucky indicates that receipts from the sale of poultry products form a much larger portion of gross farm receipts in sections of comparatively low farm income than in sections of higher incomes.

4. The seasonal movement of live poultry from southern states usually reaches its peak in the spring of the year, while that from more northern states is heaviest in the fall.

5. The spring peak of dressed poultry shipments from Kentucky occurs during a period of seasonally high fowl prices, so it appears that Kentucky shippers are taking advantage of a seasonally good market.

6. The spread between the Kentucky farm price of chickens and the wholesale price of heavy live fowls in New York is largest during January, February, March and April.

7. Religious requirements of Hebrews have a very important influence upon the live poultry market. It is estimated that 85 per cent of New York's receipts of live poultry goes to the Hebrew trade.

8. Receipts of live poultry at New York are heavy just preceding each of the important Jewish holidays and before Thanksgiving and Christmas. Prices are not uniformly higher at these times, but Thanksgiving in November, and Rosh Hashanah in September, usually have a decided influence upon prices.

9. Live poultry receipts at New York show a weekly cyclic movement with largest receipts on Wednesday and smallest receipts on Saturday, but prices show little or no corresponding movement.

10. Country merchants handle poultry primarily to secure the sale of merchandise, rather than because of expected profit from the poultry handled. Their buying prices usually are based on nearby markets, while produce dealers usually consider eastern markets as a basis for prices paid.

11. Selling live poultry to transient poultry buyers may not be economical, because they do not maintain a continuous market throughout the year.

12. The direct sale of poultry to hotels or restaurants is not practicable for most producers.

13. The production of capons holds opportunities for some Kentucky poultrymen, but improvements in production and marketing practices are needed.

14. The development and use of standard grades for both dressed and live poultry is highly desirable.

15. Seasonal market receipts and consumption of dressed poultry do not coincide. Even in November and December, which are the months of greatest demand, receipts exceed trade output.

16. Seasonal price movements are much more pronounced for live poultry than for dressed poultry.

17. The purchasing power of poultry shows some tendency to move in cycles. Changes in purchasing power, however, do not reoccur with sufficient regularity to make them particularly significant.

18. Farm prices of chickens in states to the north and east of Kentucky usually average higher than in Kentucky, while prices in states to the south and west usually average lower.

19. Existing marketing agencies in Kentucky are well established and fill an economic need. They doubtless will continue to operate until replaced by more satisfactory methods. Any improvements made must be brought about by influencing the practices of existing agencies or by assuming their obligations.

20. Improvements which are open to Kentucky producers and dealers may be classified as improvements in production practices and improvements in marketing practices.

PRODUCTION IMPROVEMENTS

(a) The quality of poultry sold may be improved by a short period of special feeding, altho milk-feeding under farm conditions is not practicable.

(b) More careful breeding of the American breeds of poultry in Kentucky would increase the value of fowls sent to market. This is not entirely a question of purebred poultry, but of breeding larger and more productive strains of the poultry now kept.

MARKETING IMPROVEMENTS

(a) High quality poultry will be produced by farmers when it can be sold for an enhancement in price sufficient to pay

for the extra effort involved in producing the added quality. A general practice of buying on the basis of grade will tend to bring this about.

(b) The direct sale of poultry by farmers thru express shipments to nearby markets, frequently is practicable. This is especially true in marketing capons. Sometimes roadside marketing will prove satisfactory.

(c) There is some opportunity for Kentucky dealers to develop trade with southern markets.

(d) Market information and its wise use in reference to market demands and tendencies is needed by both farmers and dealers in Kentucky.

(e) Half of the dealers visited reported their heaviest run of poultry prior to April 1. Many hens are sold before completing their natural spring lay of eggs. This practice may or may not be the most profitable for producers.

(f) The cooperative marketing of poultry seems feasible when carload lots can be secured within a limited area. The principal opportunity open to producers by marketing in this way is a cutting down of the usual expenses of assembling poultry for shipment and sale.

APPENDIX

Receipts of Poultry at New York City

	Live Poultry (1921-25 Ave.) (cars)	Dressed Poultry (1922-26 Ave.) (Pounds, 000 omitted)	Dressed Poultry from Kentucky (1922-25 Ave.) (Pounds, 000 omitted)
January	855	15,992	219
February	788	10,718	139
March	891	8,854	291
April	962	7,848	491
May	884	9,316	614
June	881	10,556	417
July	919	10,688	229
August	993	10,869	289
September	1,191	11,689	325
October	1,137	15,643	426
November	1,125	27,307	692
December	1,057	30,612	578
Total	11,683	170,090	4,710

Cold Storage Holdings of Dressed Poultry, the Price of Dressed Fowls in New York City and the Farm Price of Chickens in Kentucky.

	Cold Storage Holdings of Dressed Poultry in the U. S. (1922-26 Ave.) (Million lbs.)	Price of Dressed Fowls at New York City (1922-26 Ave.) (cents per lb.)	Farm Price of Chickens in Kentucky (1922-26 Ave.) (cents per lb.)
January	109	25.33	17.0
February	114	25.96	18.2
March	104	27.54	18.9
April	84	29.07	19.9
May	63	29.32	20.5
June	49	27.33	21.2
July	43	25.93	21.2
August	39	25.86	20.6
September	36	27.11	19.3
October	38	26.99	18.5
November	49	25.05	17.3
December	79	24.29	16.8
Average	....	26.65	19.1

Total Receipts of Dressed Poultry at New York City by Kinds
(1922-26 average) (Pounds, 000 omitted)

	Fowls	Chickens	Capons	Old Cocks	Turkeys
January	5,726	6,001	1,173	693	1,225
February	5,734	2,833	630	413	595
March	4,898	2,866	262	292	326
April	4,252	2,865	93	309	173
May	5,419	2,899	41	601	199
June	6,123	3,614	42	527	150
July	5,687	4,242	44	511	107
August	4,984	5,155	22	530	116
September	4,127	6,831	25	417	240
October	5,349	9,109	33	573	511
November	6,577	10,149	122	722	7,[illegible]0
December	7,381	10,885	312	792	8,5[illegible]1
Total	66,257	67,449	2,799	6,380	20,203

Monthly Average Wholesale Prices of Live Poultry at New York City
(1922-26 average) (Cents per pound)

	Heavy Fowls	Chickens	Broilers	Old Roosters	Turkeys
January	27.9	27.6	32.01	15.66	32.36
February	28.9	28.7	39.59	16.85	32.83
March	30.3	29.9	44.18	16.96	31.15
April	30.1	37.1	52.56	16.33	28.01
May	29.3	.....	46.08	15.27	23.86
June	26.8	.....	38.19	14.85	21.63
July	25.3	.....	33.03	15.65	21.50
August	25.4	.....	28.86	16.21	22.05
September	26.8	25.6	25.74	15.30	28.59
October	25.0	22.2	.....	15.59	35.92
November	23.7	24.8	.....	16.22	37.96
December	25.0	27.0	.....	15.00	34.83